

Understanding the Role of National Culture in Shaping financial and non-financial Slack: Insights from a Multinational Dataset Spanning 37 Countries Across 16 Years

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Abstract. This study shifts the focus from the traditional examination of organizational slack (OS) outcomes to understanding the mechanisms behind OS accumulation. Drawing on insights from organization theory and cultural studies, we propose that national culture significantly shapes individuals' behaviors and decision-making processes, thereby shaping the accumulation of OS. We leverage a dataset comprising 1,622 manufacturing firms from 35 countries over 16 years to explore the relationship between national culture dimensions and both financial and non-financial slack. Our findings challenge conventional wisdom by revealing the nuanced ways in which national culture impacts OS accumulation. Cultural differences can explain why organizations maintain or reduce OS levels, even in the absence of strict monitoring or during periods of below-average financial performance. Furthermore, we highlight the differential effects of national culture on financial and non-financial slack, suggesting a need for a more comprehensive understanding of OS antecedents beyond traditional financial considerations.

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1. INTRODUCTION

Academic discourse has long underscored the pivotal role of organizational slack (OS) in bolstering firm performance and resilience (Gali et al., 2023; Paeleman et al., 2017; Cyert and March, 1963). Notably, scholars contend that OS acts as a buffer against external threats and facilitates the adoption of differentiation strategies (Chen et al., 2022; Chen et al., 2023). Consequently, extant research predominantly delves into the outcomes of OS, yet largely neglects the crucial inquiry into its antecedents (Titus Jr. et al., 2022).

Existing literature offers limited insights into the determinants of OS, acknowledging primarily its association with managerial opportunism, above-average financial performance, and long-term organizational goals (Chatzopoulou et al., 2023; Titus Jr. et al., 2022; O'Brien, 2003; Gentry et al., 2016). However, these studies often operate under the assumption of decision-making processes and individual behaviors being detached from contextual influences, thus warranting further exploration into the interplay between individual, organizational, and environmental factors (Titus Jr et al., 2022).

In light of institutional-level considerations, scholars in organizational theory advocate for an examination of national culture as a pivotal determinant of organizational behaviors and outcomes. Drawing from studies such as those by Skowronski et al. (2022) and Lee et al. (2018), it becomes evident that cultural disparities exert profound influences on both organizational and individual conduct. Therefore, we posit that national culture significantly shapes the accumulation of OS through its impact on decision-making processes and organizational behavior.

Cultural dimensions permeate decision-making processes within organizations, influencing strategic management and organizational behavior (Griffin et al., 2017; Newman and Nollen, 1996). The rationale is that organizations tend to conform to cultural norms to avoid ostracism (Pfeffer and Salancik, 1978). Moreover, empirical evidence suggests that cultural factors at the national level exert a dominant influence on organizational behavior (Cai et al., 2016), underscoring the need to examine cultural antecedents of OS comprehensively.

Furthermore, national culture may elucidate discrepancies in existing assumptions regarding OS accumulation, particularly concerning managerial oversight and organizational performance (Titus Jr et al., 2022; O'Brien, 2003). While conventional wisdom advocates for stringent managerial monitoring to curtail OS accumulation (Chatzopoulou et al., 2023; Arya et al., 1994), cultural contexts characterized by high uncertainty avoidance and collectivism may mitigate opportunistic behaviors (Summerville et al., 2024; Lai et al., 2013), thus impacting OS levels. Additionally, cultural traits such as power distance influence information-sharing dynamics within organizations, potentially affecting OS accumulation, as evidenced by studies on authority-respect dynamics (van Oudenhoven et al., 1998) and the impact of power distance on employee behavior (Daniels and Greguras, 2014; Smith et al., 2002).

Lastly, challenging prevailing notions, recent empirical evidence also suggests that organizational responses to below-average performance may not necessarily entail a reduction in OS levels, as proposed by Cyert and March (1963). Cultural disparities offer insights into this phenomenon, indicating that organizations in humane-oriented and egalitarian environments may uphold OS levels despite performance downturns due to social considerations (Wiengarten et al., 2019).

From an empirical point of view, we leverage a large dataset comprising 1,622 manufacturing firms from 35 countries over a span of 16 years, using data from Refinitiv Eikon and GLOBE databases. Combining these widely used databases provides a unique chance to investigate the nuanced relationship between cultural dimensions and both financial and non-financial slack.

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Hence, our contributions, encompassing both theoretical insights and empirical work, can be outlined as follows:

Firstly, we uncover hidden assumptions and challenge conventional wisdom by providing explanations for why organizations may refrain from increasing their OS levels even without stringent monitoring, or why they might maintain OS despite below-average financial performance (Chatzopoulou et al., 2023; Titus Jr et al., 2022). Secondly, our findings hold implications for various management subfields, such as financial and operations management. For instance, managers grappling with decisions related to financial monitoring or operational optimization practices must consider the profound impact of national culture on the accumulation of both financial and operational slack. Lastly, our research highlights the nuanced and differing effects of national culture on financial and non-financial slack. This nuanced understanding prompts further exploration into these dynamics, offering valuable insights for organizational strategy and performance in diverse cultural contexts (e.g., Chatzopoulou et al., 2023; Hvide and Møen, 2010).

The next section introduces our theorizing regarding the link between national culture and OS. The third section describes the dataset and the particularities of our method. Section four displays our results, while section five presents our discussion and conclusions.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1. Literature review

2.1.1. Defining organizational slack and what we know about its antecedents

OS functions as the cushion of resources that firms maintain to manage pressures and drive outcomes (Bourgeois, 1981; Gali et al., 2023). Rather than solely aiming for efficiency maximization, OS embodies the counterintuitive notion that adaptation to changing circumstances and the seizing of opportunities necessitate the presence of both financial and non-financial slack (Voss et al., 2008). Financial slack represents surplus financial resources that enable organizations to address internal and external pressures and capitalize on emerging prospects (Gali et al., 2023). Conversely, non-financial slack encompasses operational excess resources, crucial for day-to-day operations, such as human capital, inventory, and operational capacity (Karim et al., 2023).

While existing research has extensively explored the outcomes driven by financial and non-financial slack (Gali et al., 2023; Karim et al., 2023; Chen et al., 2023), a significant gap remains in understanding the antecedents of OS. This gap underscores the critical need to delve deeper into how organizations acquire slack resources and how the effects of these antecedents vary depending on the type of slack under consideration (Titus Jr. et al., 2022). Understanding the antecedents of OS is pivotal for informing organizational decision-making and strategy formulation, offering insights into resource allocation processes and the factors driving organizational resilience and adaptability. Moreover, recognizing the variability in the effects of antecedents on different types of slack is essential. Factors influencing the accumulation of financial slack may not necessarily have the same impact on non-financial slack, underscoring the necessity for a nuanced understanding of these dynamics (Chatzopoulou et al., 2023).

While our understanding of the antecedents of OS has primarily focused on financial slack, rooted in the theoretical studies of Arya et al. (1994), Sharfman et al. (1988), and Antle and Eppen (1985), recent empirical efforts have shed light on this area (O'Brien, 2003; Riahi-Belkaoui, 1998; Hvide and Møen, 2010). O'Brien (2003) suggests that a firm's strategic orientation serves as an antecedent to OS. Organizations prioritizing innovation as a strategic imperative may accumulate more financial slack to facilitate significant and risky

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R&D investments (Nohria and Gulati, 1996). Additionally, Riahi-Belkaoui (1998) proposes that a firm's structure partially predicts the amount of OS, with more fragmented structures facilitating redundancies and reduced monitoring. Finally, Hvide and Møen (2010) demonstrate that entrepreneurs' historical wealth influences the level of financial slack in new ventures.

However, despite this promising start, consistent development in the literature on the antecedents of OS has been lacking until recently with the emergence of two significant works (Chatzopoulou et al., 2023; Titus et al., 2022). Titus Jr. et al. (2022) provide evidence that financial performance above aspiration levels drives OS, moderated by communitarianism at the national level. Aspirations, in this context, refer to the historical performance of the firm and its competitors; firms accumulate OS while considering both their past performance and that of their competitors. On the other hand, Chatzopoulou et al. (2023) offer evidence that social control, monitoring, and incentive alignment mitigate principal-agent issues and, consequently, reduce the level of financial slack.

2.1.2. National culture and its dimensions: a look at the GLOBE project

National culture comprises shared assumptions that configure a socially constructed system, encompassing meanings and preferences derived from social interactions (Hofstede, 1980; Geletkanycz, 1997). In essence, culture provides a common framework that dictates the behaviors of individuals and organizations within specific contexts.

Numerous studies have aimed to measure cultural differences across countries. Among the most prominent works are Global Leadership and Organizational Behavior Effectiveness, the World Value Survey, and Hofstede's seminal research on cultural dimensions (Hofstede, 2006). These endeavors have contributed to our understanding of why individuals and organizations behave differently across nations. Notably, the GLOBE project stands out as the largest study, encompassing national culture across 62 countries and differentiating between social values and practices, a distinction unprecedented in the literature. This granularity allows researchers from diverse disciplines to analyze the disaggregated effects of people's ideals (values) and actions (practices).

An additional distinction of the GLOBE project is its expansion of the cultural dimensions originally proposed by Hofstede (1986), allowing for a more nuanced representation of social reality (GLOBE, 2020; Hofstede, 2006). Uncertainty avoidance proxies the extent to which a society, organization, or group relies on social norms, rules, and procedures to alleviate the unpredictability of future events. Future orientation captures the extent to which individuals engage in future-oriented behaviors such as planning, investing in the future, and delaying gratification. Collectivism is the trickiest of the cultural dimensions, as it englobes institutional and in-group behaviors. Institutional Collectivism is the degree to which organizational and societal institutional practices encourage and reward the collective distribution of resources and collective action. In-group collectivism is the degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families. Power distance approximates the extent to which the community accepts and endorses authority, power differences, and status privileges. Humane-orientation measures the degree to which a collective encourages and rewards individuals for being fair, altruistic, generous, caring, and kind to others. Gender egalitarianism is how collectives minimize gender inequality. Finally, performance-orientation captures if a collective encourages and rewards group members for performance improvement and excellence.

We employ the GLOBE project to study national culture for two primary reasons. Firstly, its differentiation between cultural values and practices offers a unique perspective for understanding the influence of cultural practices on resource management. Slack resources,

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being tangible assets, are contingent on individuals' actions. Therefore, we focus on studying cultural practices as they dictate organizational behaviors. Secondly, the GLOBE study delves into the culture of managers, which is instrumental in exploring decision-making processes related to slack resource accumulation (GLOBE, 2020; Titus Jr et al., 2022). Managerial culture provides valuable insights, for instance, into differences in decision-making and managerial opportunism.

2.2. Hypotheses development

Having established the foundational literature antecedents, we now advance our theoretical framework by elucidating the relationships between cultural dimensions and OS, identifying decision-making, information flow, and opportunism as theoretical mechanisms.

2.2.1. Uncertainty Avoidance and OS

Within contexts characterized by high uncertainty avoidance, firms tend to adopt more conservative objectives (Kanagaretnam et al., 2014; Prince et al., 2020). This inclination towards caution and aversion to risk inherently reduces the need for OS, as the propensity for undertaking ventures with uncertain outcomes diminishes (O'Brien, 2003). Traditionally, slack resources serve as buffers that enable decision-makers to pursue ventures fraught with uncertainty, providing a safety net against the potential repercussions of failure (Nohria and Gulati, 1996). However, in environments with elevated uncertainty avoidance, the inclination towards such ventures diminishes (Hardisty and Pfeffer, 2017). Thus, a reduced prevalence of high-risk projects translates into a lesser accumulation of OS.

Moreover, in contexts high in uncertainty avoidance, we expect managers to behave less opportunistically because of high individual self-regulation (Summerville et al., 2024; Schlaegel et al., 2023). Owners are likely to trust managers, thinking their interests align with their subordinates, as they expect them to comply with social norms and rules. This interest alignment reduces the need for incentive programs to reduce principal-agent issues (Prince et al., 2020), something prompted to be fundamental to limit the accumulation of financial slack (Chatzopoulou et al., 2023). Thus, high uncertainty avoidance at the national level can reduce OS in two ways. On the one hand, higher self-regulation reduces principal-agent issues, which should lead to a lower accumulation of financial slack. On the other hand, interest alignment limits the need to accumulate financial reserves to sustain expensive and long-lasting monitoring and incentive programs for managers and employees in order for them to behave less opportunistically.

To sum up, in contexts where uncertainty avoidance is higher, fewer slack resources are accumulated due to a lower presence of risky goals, opportunism, and monitoring/incentive programs.

Hypothesis 1: Uncertainty avoidance is negatively associated with organizational slack.

2.2.2. Future orientation and organizational slack

Future orientation plays a pivotal role in shaping organizational behavior (Carter et al., 2024). In countries characterized by a future-oriented culture, organizations tend to exhibit higher levels of financial slack. These cultures reward behaviors such as planning and delaying gratification, fostering a commitment to long-term and investment-intensive goals (Zellweger, 2007). For example, firms within future-oriented realms often demonstrate a strong commitment to innovation and sustainability (Jones and Davis, 2000; Miska et al., 2018), prioritizing exploration and innovation as strategic imperatives (Barreto et al., 2022). This emphasis on future orientation aligns with societal expectations, incentivizing firms to

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invest in enhancing their performance. Consequently, future orientation at the national level may encourage the accumulation of financial slack at the organizational level, essential for fostering exploration capacity and innovativeness (Chen et al., 2023; Voss et al., 2008). O'Brien (2003) suggests that firms prioritizing innovation differ in their level of financial slack from those focusing on cost leadership, indicating the influence of national culture on inter-organizational differences in financial slack.

Furthermore, we propose that future orientation discourages the accumulation of non-financial slack. In environments characterized by future orientation, not all employees possess the valuable knowledge required to advance a firm's strategic goals (Lecuona and Reitzig, 2014). Consequently, organizations may preserve only human resources of strategic value, such as managers and technicians with specific knowledge, for achieving differentiation objectives (Wang et al., 2016). This strategic allocation of human resources may involve cutting expenses on less strategic roles and reallocating them, for instance, to higher R&D investments (O'Brien, 2003; Geletkanycz, 1997). Similarly, future-oriented cultures may exhibit lower levels of operational surplus resources, prioritizing financial resources for innovation opportunities rather than accumulating non-financial slack (Parboteeah et al., 2012; Barreto et al., 2022). As a result, non-financial slack is minimized as resources are strategically allocated to meet the demands of tomorrow through exploration, fostering the accumulation of financial and technician resources (O'Brien, 2003; Lecuona and Reitzig, 2014).

Altogether, these arguments lead to the following hypotheses:

Hypothesis 2a: Future orientation is positively associated with financial slack.

Hypothesis 2b: Future orientation is negatively associated with non-financial slack.

2.2.3. Collectivism and organizational slack

Collectivist environments foster greater organizational loyalty among individuals (Wang et al., 2017), positively impacting organizational citizenship behavior and aligning employee interests with those of the organization (Lai et al., 2013; Van Dyne et al., 2000). This alignment tends to mitigate opportunistic behaviors among employees and managers in collectivist settings, potentially reducing the level of slack. In fact, traditional literature on OS suggests that surplus resources often result from opportunistic behaviors facilitated by information asymmetries, such as principal-agent issues (Chatzopoulou et al., 2023). In such scenarios, managers and workers may hoard resources for personal agendas or to enhance their own working conditions, leading to the proliferation of OS in various forms.

Moreover, in collectivist environments, decision-making processes regarding human resources and operations are often collaborative endeavors (Lee Park and Paiva, 2018; Power et al., 2010; Pagell et al., 2005), characterized by open communication among workers, managers, and owners. The prevalence of long-lasting, mutually loyal relationships in collectivist cultures fosters trust and information sharing (Ollier-Malaterre and Foucreault, 2017; Raghuram et al., 2001; Lee Park and Paiva, 2018), enhancing information flow within organizations. This improved information flow enables owners to identify inefficiencies in organizational functioning and may reduce the occurrence of OS. Additionally, enhanced information sharing facilitates the detection of slack resources within teams, promoting their recovery and utilization, thereby optimizing resource allocation.

In summary, OS is expected to be lower in collectivist environments due to reduced opportunism and enhanced information flow, which enables the detection of inefficiencies and promotes inter-group resource sharing. We therefore hypothesize:

Hypothesis 3: Collectivism is negatively associated with organizational slack.

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2.2.4. Power Distance and organizational slack

High scores in this cultural dimension suggest a culture where individuals defer to authority and strive to avoid confrontation (van Oudenhoven et al., 1998). Consequently, such environments often foster a climate of complacency and conformity among employees, potentially leading to the accumulation of OS. Directives may be less inclined to consult subordinates, and employees may be hesitant to share information, thereby impeding the efficient allocation and utilization of resources (Daniels and Greguras, 2014; Smith et al., 2002). Furthermore, the reluctance to provide upward feedback, stemming from a perception of disrespect toward authority, can hinder the identification of inefficiencies within the organization (Varela and Premeaux, 2008).

Additionally, research by Farh et al. (1997) indicates that power distance can dampen organizational citizenship behaviors, further exacerbating information asymmetries within the organization. The diminished exchange of information creates opportunities for managerial opportunism, as it becomes harder to monitor the management of both financial and non-financial resources across different departments (Noe and Rebello, 1996). In such environments, managers and employees may be more inclined to accumulate slack resources for personal gain, such as shielding or procrastination (Daniels and Greguras, 2014).

In summary, countries with high power distance scores are likely to experience lower levels of OS due to reduced information flow and increased tendencies toward managerial opportunism. We therefore propose the following hypothesis:

Hypothesis 4: Power distance is positively associated with organizational slack.

2.2.5. Humane-orientation and organizational slack

In cultures characterized by a high humane-orientation, organizations prioritize the well-being and emotional satisfaction of their employees (Reus, 2012). This emphasis on employee welfare is further supported by research showing that individuals in such cultures are motivated by incentives and rewards that enhance work conditions (Lee et al., 2018). Moreover, studies have demonstrated that employees in humane-oriented contexts demonstrate greater commitment to socially responsible organizations (Mueller et al., 2012). Consequently, humane-orientation significantly influences strategic management decisions, prompting organizations to invest in programs and initiatives aimed at improving work conditions and fostering a supportive environment for employees. These investments, which extend beyond core business activities, often require significant resources and a long-term commitment, which are facilitated by the accumulation of OS.

This emphasis on employee well-being aligns with the role of OS as a crucial enabler for firms to undertake intensive investments in practices that enhance employee welfare (Wiengarten et al., 2019; Jia et al., 2023). Financial slack resources, in particular, play a pivotal role in facilitating the adoption of responsible human resource management practices, even in the absence of strong institutional pressures (Jia et al., 2023). As a result, organizations that prioritize social responsibility are more likely to accumulate the necessary slack to make these investments, a trend commonly observed in humane-oriented environments. Furthermore, the surplus capacity provided by OS can contribute to a safer working environment by reducing the occurrence of injuries, fatalities, and mental health issues among workers (Wiengarten et al., 2019; Wiengarten et al., 2017). Therefore, firms operating in humane-oriented cultures may have a propensity to accumulate both financial and non-financial reserves to enhance working conditions and ensure the well-being of their employees.

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To put it briefly, decision-makers in environments characterized by a high humane-orientation tend to prioritize the accumulation of OS as a means of demonstrating care and concern for their organizational members. Beyond altruism, organizations in these cultural contexts recognize that investing in employee well-being is essential for attracting talent, incentivizing performance, and mitigating potential safety issues. Accordingly, we hypothesize:

Hypothesis 5: Humane-orientation is positively associated with organizational slack.

2.2.6. Gender Egalitarianism and organizational slack

In national contexts with high gender egalitarianism scores, organizations tend to demonstrate greater social responsibility, particularly in terms of social performance (Miska et al., 2018; Cai et al., 2016). This inclination arises from the pressure exerted by diverse stakeholders, compelling firms in these environments to adopt goals centered on social equality, human rights protection, and inclusivity (Cai et al., 2016). Consequently, organizations in such contexts are more responsive to stakeholder pressures, resulting in a higher proportion of strategies aimed at advancing social responsibility initiatives (Miska et al., 2018). To this end, organizations make intensive investments beyond their core business activities, such as developing specific programs to prevent workplace harassment.

Simultaneously, OS plays a pivotal role in driving social responsibility, particularly in the realm of human resource management (Jia et al., 2023). Recent research has underscored the importance of OS in pursuing responsible human resource practices across various national contexts (Jia et al., 2023). While direct studies linking OS with gender egalitarian practices may be lacking, insights from literature on OS and responsibility suggest that organizations are inclined to accumulate slack resources to foster inclusivity in the workplace (Chiu and Sharfman, 2011; Jia et al., 2023). Specifically, financial slack enables organizations to address the additional costs associated with promoting initiatives and programs that advance gender egalitarianism. Moreover, a more relaxed operational environment is conducive to the adoption of processes that may initially pose challenges for the organization's members. As a result, firms are likely to accumulate OS, thereby facilitating the successful implementation of inclusive programs.

In summary, it is plausible that organizations operating in national contexts characterized by high gender egalitarianism scores accumulate slack resources in response to stakeholders' pressures, thereby advancing initiatives aimed at fostering gender equality and inclusivity. We thus hypothesize:

Hypothesis 6: Gender egalitarianism is positively associated with organizational slack.

2.2.7. Performance-orientation and organizational slack

In performance-oriented environments, organizations prioritize individual and group performance as overarching goals, often implementing mechanisms such as incentive programs to reward exemplary performance (Galy, 2020; Sturman et al., 2012). These organizations accumulate resources to sustain such mechanisms, ensuring they have the means to reward outstanding performance whenever it occurs. Consequently, organizations in these national contexts often maintain financial reserves earmarked for incentivizing individuals.

Moreover, the extant literature suggests that financial slack not only facilitates employee performance but also supports the maintenance of high-performance working systems within organizations (Kim et al., 2021; Jansen et al., 2012). With financial surplus capacity, organizations can implement and sustain human resource management practices that effectively incentivize employee performance (Yanadori and Cui, 2013). In environments

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where financial slack is present, individuals tend to perform optimally, operating under the assumption that there are ample resources available to reward exceptional performance. Therefore, the environmental forces promoting the establishment of performance goals and rewards indicate that financial slack tends to be higher in organizations within performance-oriented countries.

However, the relationship between performance-orientation at the national level and non-financial forms of OS may exhibit a contrasting dynamic. Individuals driven by performance excellence are inclined to maximize the utilization of available resources in business activities (Galy, 2020). As the environment emphasizes the rewards of excellence, individuals are motivated to focus on problem-solving, leaving little room for unutilized time and resources. Non-financial slack, characterized by free time and unused capacity, contradicts the ethos of performance excellence in the workplace (e.g., leading to lower voluntary turnover; Sturman et al., 2012), which is generally lower in organizations where individuals strive to maximize their performance. Those pursuing performance excellence as their objective are more likely to engage in intensive work, minimizing unused time and productive capacity.

In summary, we anticipate a contradictory effect of performance-orientation on OS, with financial slack tending to be higher in performance-oriented environments, while non-financial forms of slack may be lower due to the emphasis on performance excellence and resource optimization. Hence our hypotheses:

Hypothesis 7a: Performance-orientation is positively associated with financial slack.

Hypothesis 7b: Performance-orientation is negatively associated with non-financial slack.

3. METHODS

3.1. Data

Our sample comprises publicly listed industrial corporations sourced from the Eikon-Thomson Reuters database (He and Chittoor, 2023; Li and Haleblan, 2022). We extracted all required business information to measure our variables, including financial slack and financial performance.

To assess national cultural practices for our national-level variables, we utilize the GLOBE framework, a widely adopted approach in previous studies (Holmes et al., 2013; Li and Haleblan, 2022). This framework provides a robust foundation for evaluating cultural dimensions across different countries, allowing for meaningful cross-country comparisons. Additionally, to bolster the methodological robustness of our study, we incorporate data from the Global Climate Risk Index database to control for climatic conditions that may influence OS accumulation (Huang et al., 2018).

Our final balanced panel comprises 1,622 firms spanning 35 countries, encompassing a total of 11,498 firm-year observations over a span of 16 years. This comprehensive dataset allows us to delve into the relationship between cultural dimensions, OS, and firm performance across diverse national contexts.

3.2. Variables

3.2.1. Dependent Variables

Our dependent variable is OS. Following previous literature, we separated financial slack from non-financial slack (i.e., human operational slack). We calculated the level of financial available slack as cash reserves and short-term investments (Bradley et al., 2011; Voss et al., 2008; Kavusan and Frankort, 2019). Following previous studies, we developed ratios and

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normalized the measurement to the industry mean. Hence, financial available slack was calculated as cash reserves plus short-term investments over gross earnings normalized to the industry mean (Kiss et al., 2018; Julian and Ofori-dankwa, 2013). Regarding non-financial OS, we followed the predominant operationalization: operating expenses over gross earnings normalized to the industry (Wiengarten et al., 2019; Carnes et al., 2019).

3.2.2. Independent Variables

We obtained national culture scores for uncertainty avoidance, future orientation, power distance, collectivism, humane-orientation, gender egalitarianism, and performance-orientation from the Global Leadership and Organizational Behavior Effectiveness (GLOBE) project, as detailed in prior research (House et al., 2002). Notably, GLOBE's methodology differs from other cultural frameworks, such as Hofstede's cultural dimensions, as it relies on surveys conducted with managers rather than employees (GLOBE, 2020). This managerial perspective is particularly relevant to our study, given that managers often play a pivotal role in determining the level of OS within firms, either by facilitating its existence or actively reducing it.

Moreover, a distinctive feature of the GLOBE database is its ability to distinguish between cultural values and practices. This distinction allows us to examine the specific impact of cultural characteristics as they are manifested in real-world behaviors and practices. Unlike measures of cultural values, which reflect idealized cultural norms ('should be' scores), GLOBE's inclusion of cultural practices provides insights into the actual behaviors prevalent within different cultural contexts. For our study, we focused on cultural practices as they more directly influence tangible aspects of OS, such as resource allocation and decision-making.

3.2.3. Control Variables

To ensure robust estimations, we included various control variables related to OS accumulation. Initially, we considered factors regarding board and management composition, pivotal in shaping organizational decision-making processes. These factors encompassed board size, independence, and gender diversity at both levels (De Villiers et al., 2011; Baixauli-Soler et al., 2015). Board size, indicating independence, aims to enhance monitoring and mitigate principal-agent issues, potentially reducing OS accumulation (Rashid, 2015; Chatzopoulou et al., 2023). Gender diversity also influences decision-making and resource allocation, potentially impacting OS accumulation (Baixauli-Soler et al., 2015).

At the organizational level, we controlled for aspects of the firm's strategy, including commitment to long-term goals via Environmental, Social, and Governance indicators, employee training, and differentiation intensity (Kotsantonis et al., 2016; Greve, 2003). Stronger ESG indicators suggest a focus on sustainability, impacting resource allocation and OS accumulation. Similarly, investments in employee training and differentiation intensity reflect strategic orientation (Greve, 2003).

Additionally, firm size and financial performance (Return on Assets - ROA) were control variables influencing OS accumulation (Sharfman et al., 1988; Titus Jr. et al., 2022). To address country-level environmental factors impacting resource management, we controlled for climatic risk using the Global Climate Risk Index, providing insights into resource allocation and OS accumulation (Huang et al., 2018).

3.3. Estimation Method

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We use a random effects model to analyze time-invariant variables, allowing us to see how national culture differences impact organizational behavior across countries. This model accounts for unobserved heterogeneity at the country and firm levels and controls for temporal effects. To enhance robustness, we employ a multilevel modeling approach, capturing data variations at the country, firm, and year levels (Bu et al., 2022; Jia and Mayer, 2017). Finally, we standardize variables to a mean of zero and a standard deviation of one to enable meaningful comparisons and improve result interpretability.

4. RESULTS

Table 1 presents the descriptive statistics of our variables, and Table 2 displays our results for financial and non-financial slack.

— Insert Table 1 about here —

— Insert Table 2 about here —

Hypothesis one (H1) posited a negative relationship between uncertainty avoidance and organizational slack (OS), suggesting that cultures with high uncertainty avoidance would exhibit lower levels of slack resources due to conservative, risk-averse objectives. Our findings support this hypothesis for financial slack (coefficient = -0.049, $p = 0.065$), indicating that heightened uncertainty avoidance reduces financial slack. However, the relationship with non-financial slack is non-significant (coefficient = 0.011, $p = 0.726$), highlighting a nuanced impact on different resource types.

The divergent outcomes may stem from the distinct roles of financial and non-financial slack. High uncertainty avoidance may lead to reduced financial slack as firms avoid risky ventures that drive financial reserves. Non-financial slack, not directly linked to risky goals, could be influenced by organizational structures, routines, or cultural factors like operational inefficiency or employee well-being concerns (e.g., power distance, humane orientation).

Our second hypotheses (H2a/H2b) proposed that higher future orientation would increase financial slack while reducing non-financial slack. This is based on the need for financial slack in innovation and the reallocation of non-financial slack to support such investments. The non-significant coefficients for financial (coefficient = .027, $p = .292$) and non-financial slack (coefficient = -.017, $p = .573$) suggest other mechanisms may influence the effect of national culture on resource allocation, emphasizing the potential role of organizational factors.

Hypothesis three (H3) posited a negative relationship between collectivism and OS, driven by enhanced organizational loyalty and collaborative decision-making, which reduce opportunistic behaviors and improve resource allocation. Our findings partially support this, showing a significant negative relationship between collectivism and non-financial slack (coefficient = -.082, $p = .008$; coefficient = -.081, $p = .022$), but not financial slack (coefficient = -.033, $p = .225$; coefficient = .001, $p = .986$).

In collectivist environments, collaborative decision-making enhances information flow and efficiency, reducing non-financial slack. Resources are utilized more effectively to support organizational goals, and investments in employee well-being may increase non-financial slack. Financial decisions, often centralized, are less influenced by collectivist values, explaining the non-significant impact on financial slack. Moreover, collectivism may not reduce managerial opportunism, affecting financial slack accumulation.

Hypothesis four (H4) suggests a positive association between power distance and OS due to information asymmetries and reduced feedback, leading to opportunistic behaviors and inefficiencies. Our results confirm a significant increase in non-financial slack with higher power distance (coefficient = .055, $p = .087$), while financial slack shows no significant change (coefficient = -.006, $p = .830$). High power distance environments may lead to

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operational inefficiencies and non-financial slack accumulation due to hesitant employee feedback, whereas respect for authority may limit managerial opportunism, affecting financial slack less.

Hypothesis five (H5) proposed that humane orientation is positively associated with OS, as organizations prioritize employee well-being, leading to investments in programs enhancing work conditions. This emphasis aligns with both financial and non-financial slack roles in supporting responsible human resource practices. Our findings confirm this for non-financial slack (coefficient = .076, $p = .018$), but not for financial slack (coefficient = -.005, $p = .864$).

The significance disparity may arise from managers prioritizing employee well-being through non-financial slack (e.g., safety enhancements) over broader initiatives requiring financial slack. Additionally, financial slack might need conversion into other OS forms to impact well-being effectively, a mechanism potentially overlooked in our analysis.

Hypothesis six (H6) posited that gender egalitarianism drives OS, as organizations prioritize gender equality and inclusivity, requiring both operational and financial investments. Our results partially confirm this, showing strong significance for non-financial slack (coefficient = .047, $p = .085$), indicating resource accumulation to support diversity programs, while financial slack shows non-significant results (coefficient = .013, $p = .576$).

The non-significance for financial slack may stem from gender equality practices focusing on equal opportunities rather than financial decision-making. The effects on financial management might be indirect or limited in scope.

Hypothesis seven (H7a/H7b) predicted a contradictory relationship between performance orientation and OS, with higher financial slack for high performance orientation due to the need for financial slack in establishing high-performance systems, and lower non-financial slack due to efficiency improvements. The non-significant results for both financial (coefficient = .041, $p = .146$) and non-financial slack (coefficient = .026, $p = .363$) suggest a more complex relationship than proposed.

Underlying organizational or environmental factors not accounted for may explain the non-significant relationship. Firms might prioritize alternative strategies to enhance performance, such as lean operations, where OS accumulation is unnecessary. Competitive pressures may also render OS accumulation unattractive for short-term goal achievement. VIF values adhered to the recommended cut-off below 5 (Godart et al., 2015).

5. DISCUSSION AND CONCLUSION

5.1. Theoretical Contributions

This study alters academic conversation on OS in four different ways: (I) we argue for the role of national culture as a fundamental yet neglected antecedent of OS. (II) We transcend previous controversies involving economic and organization theorists evidencing that the accumulation of OS does not respond solely to individual- or organizational-level dynamics, as it depends largely on cultural factors. (III) We provide insights for the literature dealing with OS in the Strategic, Operations and Financial management subfields, illuminating the debate surrounding the accumulation of both financial and non-financial slack. (IV) By leveraging arguments on the distinct impact of national culture on financial and non-financial slack, we prompt the need for a more nuanced understanding of OS antecedents, challenging the historical emphasis on financial slack.

(I) In section two, we explained that the literature on the antecedents of OS has developed in an interesting way. Historically, the focus has been on how OS is accumulated through intrafirm dynamics and financial forms of slack (O'Brien, 2003; Sharfman et al., 1988), with the field remaining largely theoretical until its recent resurgence (Chatzopoulou et al., 2023;

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Titus Jr et al., 2022). Our theoretical and empirical findings expand the debate on the antecedents of OS beyond firm boundaries. We highlight the significant influence of national culture on the extent of OS, offering a nuanced perspective that both refines traditional understandings and challenges longstanding assumptions.

On the one hand, our findings refine the traditional conceptions in the literature on OS antecedents, which often assume that a predictor of OS has similar effects on all forms of slack. On the other hand, revealing the role of national culture as an antecedent of OS helps explain why previous assumptions did not hold. For instance, our study illuminates why certain organizations maintain their OS levels despite limited supervision or below-average financial performance, even when agency theory predicts otherwise. We demonstrate that cultural dynamics, arising from the relationship between individuals and organizations with their environment, explain what previous individual- or organization-centered theories could not.

Thus, our research bridges gaps in the literature and has the potential to resolve disputes between economists and organizational theorists regarding slack dynamics (Chatzopoulou et al., 2023; Titus Jr et al., 2022).

(II) Stemming from the former, our study has the potential to reconfigure the discourse between economic and organizational theorists regarding OS accumulation. While these perspectives have often been at odds, we argue that their exclusive focus on internal organizational factors has obscured a broader understanding of the external forces shaping OS accumulation. Economic theorists typically attribute slack resources to managerial opportunism, framing OS negatively due to perceived drawbacks such as lax management and overinvestment (Arya et al., 1994; Chatzopoulou et al., 2023). Conversely, organizational theorists view OS as a strategic asset enabling differentiation, resilience, and adaptability, often linking its origins to historical periods of overperformance (Carnes et al., 2019; Mellahi and Wilkinson, 2010).

Our findings transcend this dichotomy by highlighting the significant influence of national culture on OS, thereby elucidating external factors beyond the firm's boundaries that impact its accumulation. This challenges the prevailing notion that managerial opportunism is the sole driver of OS accumulation in the absence of monitoring (Arya et al., 1997). Moreover, our research sheds light on why certain firms maintain their OS levels even when falling short of historical and social aspirations (Titus Jr et al., 2022). By incorporating cultural dimensions into the analysis, we reveal how societal norms, values, and practices shape organizational behaviors and decision-making processes, ultimately influencing the accumulation of slack resources.

(III) Moreover, our contributions extend across various management domains, offering profound insights into the cultural influences on both financial and non-financial slack.

In the realm of strategic management, our research sheds light on how cultural dimensions, including uncertainty avoidance, in-group collectivism, power distance, humane orientation, and gender egalitarianism, influence the accumulation of financial and operational slack. We extend the traditional understanding of OS accumulation, which has typically been confined to the firm's boundaries. By incorporating insights from national culture studies, we argue that conventional explanations that link OS exclusively to business performance in relation to social aspirations are not comprehensive (Singh, 1986; Titus Jr et al., 2022; Waddock and Graves, 1997). For example, in high uncertainty avoidance environments, financial slack levels may remain low, even when performance exceeds historical and social aspirations (Cyert and March, 1963). This perspective provides a more nuanced understanding of the factors influencing OS accumulation.

Within financial management, our findings unveil how cultural factors like uncertainty avoidance and in-group collectivism act as inhibitors of financial excess, rooted in reduced

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managerial opportunism, heightened loyalty, and group cohesiveness. However, gender egalitarianism contributes to financial slack, suggesting that cultural contexts may shape resource accumulation for diversity programs. These insights challenge the efficacy of strict monitoring paradigms in certain cultural contexts (Arya et al., 1994; Chatzopoulou et al., 2023), underscoring the importance of considering culture in financial slack research.

In operations management, we reveal that collectivism diminishes slack levels, prompting a reassessment of the effectiveness of optimization processes in such contexts (e.g., lean manufacturing). Additionally, we advocate for the integration of national culture considerations into efficiency-driven paradigms (Lee Park and Paiva, 2018). For instance, organizations operating in high power distance contexts may encounter challenges in reducing inefficiencies due to reluctance to confront superiors, thus hindering effective communication of operational issues.

(IV) Lastly, our study presents targeted arguments and evidence regarding the distinct impact of national culture on financial and non-financial slack. This perspective encourages a more nuanced understanding of slack antecedents, challenging the historical emphasis on financial slack (e.g., Chatzopoulou et al., 2023; Hvide and Møen, 2010; O'Brien, 2003). Importantly, the literature has often overlooked explanations for non-financial slack antecedents. Our findings demonstrate that, with the exceptions of future orientation, performance orientation, and in-group collectivism, all cultural dimensions exert differential effects on financial and non-financial OS. For instance, while uncertainty avoidance predicts the accumulation of financial slack, it does not influence the emergence of non-financial slack. These results also underscore the need to refine existing theories on OS antecedents, considering the distinct ways in which the same predictors influence different forms of OS. This endeavor is critical, given that each form of OS impacts organizational outcomes differently, as evidenced by prior studies (Voss et al., 2008; Zhang et al., 2023).

5.2. Managerial implications

Our study offers valuable insights for managers regarding the influence of national culture on the accumulation of OS, which can significantly impact business performance (de Jong et al., 2021; Lecuona and Reitzig, 2014). Owners, investors, and managers must recognize how cultural contexts shape OS accumulation, as it can either enhance or hinder organizational goals.

Firstly, cultural factors can inadvertently lead to the accumulation of slack resources, resulting in inefficiencies and potentially harming business performance. For instance, in contexts characterized by high power distance, there may be a tendency to accumulate operational slack, which could prove detrimental depending on the organizational context (Tan and Peng, 2003). Therefore, organizations need to be vigilant about the potential negative implications of cultural influences on OS accumulation.

Conversely, for organizations striving for superior corporate responsibility and innovation, operating in countries conducive to OS accumulation may be advantageous. For example, firms in cultures high in in-group collectivism, gender egalitarianism, and humane orientation may benefit from accumulating OS, knowing that these resources can be utilized for developing environmental and social initiatives.

Moreover, our findings suggest that organizations operating in cultures with high uncertainty avoidance and in-group collectivism are likely to encounter fewer issues with the accumulation of financial slack due to increased loyalty and adherence to norms. This insight is particularly relevant for multinational directors overseeing subsidiaries in diverse cultural contexts, as it provides guidance on navigating cultural differences to mitigate opportunistic behaviors.

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Lastly, plant managers should be mindful that operational slack is particularly sensitive to national culture, especially variations in in-group collectivism, humane orientation, power distance, and gender egalitarianism. The cultural propensity to increase operational slack can pose challenges for implementing efficiency-driven initiatives. Therefore, decision-makers must recognize and account for the relationship between national culture and non-financial slack to optimize operational efficiency effectively.

5.3. Conclusions

Our study revealed the distinct impact of national culture on the financial and non-financial slack that firms require for performance and resilience. We demonstrated how various cultural dimensions influence the accumulation of OS through goal-setting, information flow, and opportunistic behavior. This evidence presents compelling and contrasting relationships between national culture and financial and non-financial slack. Our findings broaden the discussion on OS, extending its relevance to strategic, operational, and financial management. Specifically, we refine previous theories on the accumulation of financial and non-financial slack, providing valuable insights for future research on the topic and challenging prevalent assumptions in the literature. While our study is not without limitations—it only accounts for 35 countries out of nearly 200, and our secondary data approach could be complemented by experimental research—it invites us to rethink organizational theory by incorporating the impact of cultural differences. This is crucial in a world increasingly characterized by multinational organizations and international teams.

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Table 1. Descriptive Statistics.

Variable	Obs	Mean	Std. Dev.	Min	Max
Board Size	11948	10.857	3.894	1	33
Board Gender Diversity	11948	15.312	14.063	0	66.667
Board Independence	11948	47.436	26.241	0	100
ESG Score	11948	51.112	19.746	.416	94.239
Employee Development	11948	.337	.249	0	1
Differentiation Intensity	11948	.019	.036	-.083	.704
R&D Investment	11948	.488	.5	0	1
Total Assets	11948	1.472e+10	2.916e+10	2.582e+08	3.842e+11
EBITDA to Sales	11948	.225	.148	.04	.793
ROA	11948	.123	.066	.01	.397
Uncertainty Avoidance	11948	4.464	.537	2.883	5.371
Future Orientation	11948	4.062	.422	2.877	5.068
Power Distance	11948	5.114	.301	3.894	5.802
Institutional Collectivism	11948	4.435	.488	3.246	5.224
Humane Orientation	11948	4.007	.462	3.181	5.12
Performance Orientation	11948	4.199	.303	3.204	4.935
In-group Collectivism	11948	4.768	.764	3.529	6.362
Gender Egalitarianism	11948	3.34	.296	2.579	4.076
Climatic Risk	11948	48.953	30.782	5.5	125
Financial Slack	11948	.048	.614	-2.279	3.982
Non-financial slack	11948	.283	1.958	-6.723	12.134

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Table 2. Results for the relationship between national culture and financial slack (Random Effects Multilevel Model-HLM).

Variables	Financial Slack			Non-financial Slack		
	Coef.	St.Err.	p-value	Coef.	St.Err.	p-value
Uncertainty Avoidance	-.049*	.027	.065	.011	.031	.726
Future Orientation	.027	.026	.292	-.017	.03	.573
Power Distance	-.006	.028	.83	.055*	.032	.087
Inst. Collectivism	-.033	.027	.225	-.082***	.031	.008
Humane Orientation	.005	.028	.864	.076**	.032	.018
Performance Ori.	.017	.027	.525	.02	.031	.524
In-group Collectivism	.001	.03	.986	-.081**	.035	.022
Gender Egalitarianism	.013	.024	.576	.047*	.027	.085
Climatic Risk	.042*	.024	.073	.073***	.027	.007
Board Size	-.04***	.014	.005	-.095***	.014	0
Board Gender Div.	.018	.014	.184	.016	.013	.235
Board Independence	-.013	.015	.406	-.008	.015	.598
ESG Score	.002	.016	.88	-.023	.015	.139
Employee Development	.005	.013	.702	.029**	.013	.022
Differentiation Intensity	.046***	.015	.003	.142***	.016	0
R&D Investment	.038**	.016	.018	.013	.016	.407
Total Assets	-.082***	.016	0	-.116***	.017	0
ROA	-.46***	.013	0	-.749***	.013	0
Constant	-.002	.038	.949	.022	.043	.613
Industry Effects	-2.015	.154		-1.238	.091	
Year Effects	-2.067	.227		-2.093	.202	
Firm Effects	-.48	.024		-.298	.022	
Constant	-.245	.007		-.356	.007	
Number of obs	11948	Chi-2	1285.20	Chi-2	3567.632	
			5			
Prob > chi2	0.000	AIC	30969.7	AIC	29246.979	
			53			

*** $p < .01$, ** $p < .05$, * $p < .1$